

Determining whether an aquifer or portion thereof is not currently being used as a source of drinking water [40 CFR 146.4(a)]

Current Use Issue

- What constitutes an aquifer that is “currently used as a drinking water source,” per 40 CFR 146.6(a)?
 - “Current use” includes more than wells located inside the proposed exempted area
“The applicant should survey the proposed exempted area to identify any water supply which tap the proposed exempted area. The area to be surveyed should cover the exempted area and a minimum of ¼ mile from the boundary of the exempted area.”
Guidance 34.
 - The nature of ground water movement (particularly at depth) reveals more dynamic processes.
 - As a result, more wells may currently use an aquifer than previously thought.

Current Use Potential Solution

- Delineate the extent of the aquifer or portion of the aquifer to be exempted.
- Review public and private water supply records, identify all drinking water wells within the delineated exempted aquifer, and determine whether any draw from the aquifer.
- If any public or private drinking water wells are *currently* capturing or producing drinking water from within the delineated area of the aquifer, then the aquifer is a source of drinking water.
- If there is hydraulic interference between injected or mobilized fluids and the capture zone of a drinking water well, then the aquifer currently serves as a source of drinking water.

Current Use Discussion

- Following proper delineation of the area proposed for exemption, the demonstration that an aquifer or a portion thereof is not currently being used as a source of drinking water is a fairly straightforward analysis. If any public or private drinking water wells are *currently* capturing or producing drinking water from the aquifer within the area delineated (that is, the injection and production wells mutually interfere), then that aquifer or portion of the aquifer delineated would be a source of drinking water.
- The delineation of the boundaries of a proposed exemption involves identifying the receiving volume of subsurface for the fluids impacted by the injection operation and the capture zone for each drinking water well that may be impacted by the injection.

Unless, based on the method selected for the delineation, it can be successfully demonstrated that no drinking water well mutually interferes with the injection well, 40 CFR 146.4(a) is not met, and an aquifer exemption may not be issued.

- If any surface water supplies are recharged by the aquifer or portion of the aquifer proposed for exemption, then the criterion at 40 CFR 146.4(a) would not apply. While surface water is outside of the UIC Program's purview, ground water that recharges a surface water body that supplies water system is considered to be a source of drinking water. Likewise, if the aquifer proposed for exemption is unconfined, an aquifer exemption is not an option.
- The applicant should review records of public and private water supplies and identify all drinking water wells within the delineated exempted aquifer, and demonstrate that none of the drinking water wells draw from the aquifer (or portion of the aquifer) under consideration. Any water supply wells identified should be presented on a map showing the proposed exempted area. If no water supply wells would be affected by the proposed exemption, the request should state that a survey was conducted and that no water supply wells produce water from the aquifer (or portion of the aquifer) under consideration.